AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1 of 5

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
0005	24-Jun-2004	W81G66-3261-0518	

6. ISSUED BY	CODE	7. ADMINISTERED BY (If other than item 6)	CODE
U. S. ARMY ENGINEER DISTRICT, CHICAGO 111 CANAL STREET CHICAGO IL 60606	W912P6	**See Item 6**	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		
	X	9A. AMENDMENT OF SOLICITATION NO. W912P6-04-R-0001
	X	9B. DATED (SEE ITEM 11) 10-May-2004
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE / FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer [X] is extended, [ ] is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

[ ] A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

[ ] B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

[ ] C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

[ ] D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Reference Solicitation No. W912P6-04-R-0001 for Deer Creek Flood Control Project, Ford Heights, Illinois.

The Proposal Due Date is extended from 24 June 2004 at 4:30 PM, Chicago Local Time to 1 July 2004 at 4:30 PM, Chicago Local Time.

Continued on next page.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:	
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 24-Jun-2004

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this Amendment:

A. CHANGES TO SPECIFICATIONS

Attached hereto are the following revised pages to the Solicitation's Specifications. Revised pages will replace like-numbered pages in the subject Specifications. Changes are indicated by an asterisk in the left margin opposite the beginning of the revision and an asterisk in the right margin opposite the end. The revision is marked with "(Am-0005)" and is shown on each page of the revised specification sections.

Section	Page No(s)/Paragraph No(s)
00010	Page 11 of 76/ Line Item 0026
00010	Page 13 of 76/ Line Item 0031
01100	01100-5/ Para. c
01270	01270-8/ Para. 1.3.17.1
01270	01270-8/ Para. 1.3.17.2
01270	01270-11/ Para. 1.3.31.1
02890	02890-8/ Para. 2.5.4.3
02890	02890-8/ Para. 2.5.5
02921	02921-5/ Para. 2.1.2
02921	02921-5/ Para. 2.1.3
02921	02921-9/ Para. 3.1.1
02921	02921-13/ Para. 3.3.4
02930	02930-20/ Para. 3.6

B. NEW PAGES/PARAGRAPHS

Attached hereto are the NEW pages to specification sections. Each new specification page is marked with "(Am-0005)."

Section	Page No(s)
00320, Appendix A	3-1 to 3-17

C. CHANGES TO DRAWINGS

Revised Drawings: The drawings listed below replace like-numbered drawings and are issued herewith. Remove the old drawings and replace with the new drawings.

Drawing No.	Sheet No.	Revision Date
DCREKG02.CAL	G-02	6/21/04
DCREKC20.CAL	C-20	6/21/04
DCREKC25.CAL	C-25	6/21/04
DCREKC26.CAL	C-26	6/21/04

D. CHANGES TO SECTION 00100, *BIDDING SCHEDULE/INSTRUCTIONS TO BIDDERS*

PROCEDURES FOR SUBMITTAL OF OFFERS:

1. Delete the text contained in Paragraph 3.1 in its entirety and replace it with the following text:

3.1 Past Performance. The Offeror will be evaluated on the last three most recent ratings in the Construction Contractor Appraisal Support System (CCASS). Should the Offeror have less than three ratings in the CCASS, it must supplement the number of ratings by providing a relevant project(s) of which it has worked on, along with a detailed project description of each so that the total number of references equals three. If providing references for a relevant project, ensure the Contact Name(s) and Telephone number(s) are included. If the Offeror does not have any ratings in CCASS, the Offeror must submit names of three relevant projects of which it has worked on, along with a detailed project description of each and include references with contact names and phone numbers.

E. CHANGES TO SECTION 00600 – REPRESENTATIONS & CERTIFICATIONS

The following were previously included by reference and are now included by full text:

52.219-19 SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (OCT 2000)

(a) Definition.

"Emerging small business" as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry Classification System (NAICS) code assigned to a contracting opportunity.

(b) [Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.] The Offeror [ ] is, [ ] is not an emerging small business.

(c) (Complete only if the Offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees	Avg. Annual Gross Revenues
____ 50 or fewer	____ $1 million or less
____ 51 - 100	____ $1,000,001 - $2 million
____ 101 - 250	____ $2,000,001 - $3.5 million
____ 251 - 500	____ $3,500,001 - $5 million
____ 501 - 750	____ $5,000,001 - $10 million
____ 751 - 1,000	____ $10,000,001 - $17 million
____ Over 1,000	____ Over $17 million

(End of provision)

52.219-21 SMALL BUSINESS SIZE REPRESENTATION FOR TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (MAY 1999)

(Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees	Avg. Annual Gross Revenues
____ 50 or fewer	____ $1 million or less
____ 51 - 100	____ $1,000,001 - $2 million
____ 101 - 250	____ $2,000,001 - $3.5 million
____ 251 - 500	____ $3,500,001 - $5 million
____ 501 - 750	____ $5,000,001 - $10 million
____ 751 - 1,000	____ $10,000,001 - $17 million
____ Over 1,000	____ Over $17 million

(End of provision)

F. CHANGES TO SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS

The following have been modified:

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work, ready for use not later than 491 Calendar days after the date that the contractor receives the Notice to Proceed with the exception of Maintenance and Monitoring of permanently planted areas, wet and wet mesic restoration area, and specified burning and maintenance, and monitoring of the Oak Savannah Restoration area . After completion of permanent plantings, the Contractor shall commence the maintenance and monitoring period and complete work not later than 1,520 consecutive calendar days after the initial Notice to Proceed. Maintenance and monitoring will be required for permanently planted areas for a period of 365 calendar days after planting as stated in Specification Section 02930. Detailed requirements and sequencing of work are included for the wet and wet mesic restoration area and the oak savannah restoration area in Specification Section 02930. The time stated for completion shall include final cleanup of the premises. Final acceptance of the entire project will occur after the maintenance and monitoring period is completed and accepted by the Contracting Officer.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $1,409.00 for each calendar day of delay until the work is completed or accepted. Liquidated damages do not apply to Line Items number 0007 and 0040.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.211-11 LIQUIDATED DAMAGES--SUPPLIES, SERVICES, OR RESEARCH AND DEVELOPMENT (SEP 2000)

(a) If the Contractor fails to deliver the supplies or perform the services under Line Items 0007 and 0040 within the time specified in this contract, the Contractor shall, in place of actual damages, pay to the Government liquidated damages of $503.00 per calendar day of delay.

(b) If the Government terminates this contract in whole or in part under the Default--Fixed-Price Supply and Service clause, the Contractor is liable for liquidated damages accruing until the Government reasonably obtains delivery or performance of similar supplies or services. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(c) The Contractor will not be charged with liquidated damages when the delay in delivery or performance is beyond the control and without the fault or negligence of the Contractor as defined in the Default--Fixed-Price Supply and Service clause in this contract.

(End of clause)

G. The Point of Contact for this Amendment is David Dilks at 312-846-5373.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0025	Cellular Concrete Block FFP	21,750	Square Foot		
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
* 0026	Geotextile Fabric FFP	45,715	Square Foot		*
				NET AMT	

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0027	24-Inch CMP FFP	90	Linear Foot		
				NET AMT	

	ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
*	0031	36-Inch Flared End Sections FFP	3	Each			*

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0032	8-Inch Flexible Check Valves FFP	1	Each		

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0033	18-Inch Flexible Check Valves FFP	2	Each		

NET AMT

c. All insuring companies must be rated A, or Superior, by A.M. Best Company, an independent insurance rating service.

Comprehensive General Liability (Occurrence Policy Form Only)	
General Aggregate	$2,000,000
Products/Completed Operations	$2,000,000
Each Occurrence	$1,000,000
Fire Damage Legal Liability	$50,000
Comprehensive Automobile Liability (Including Hired Automobile Liability and Non-Owned Automobile Liability)_	
Combined Single Limit	$1,000,000
Employers' Liability	
Each Occurrence	$500,000
Policy Limit	$500,000
Each Employee (Or Statutory Limits if higher)	$500,000
* Workers Compensation (As Required by State Law or Federal Law)	
Umbrella Liability (Occurrence policy form only) Each Occurrence and Aggregate	$5,000,000 *

d. Prior to commencement of work hereunder, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which contract is to be performed an in no event less than thirty (30) days after written notice thereof to the Contracting Officer.

1.12 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This clause specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSE entitled "DEFAULT (FIXED-PRICE CONSTRUCTION)." In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied.

a. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar

1.3.16.2 Block Measurement

Cellular concrete block will be measured for payment in square feet of cellular concrete block placed in the accepted work area.

Unit of Measure: Square Feet (SF)

1.3.17 Geotextile Fabric Bid Item No. 0026

1.3.17.1 Payment

* Payment for geotextile fabric will be made at the contract unit price per square foot of fabric installed in the accepted work area. *

1.3.17.2 Measurement

* Geotextile fabric will be measured in square feet of geotextile fabric actually installed in the accepted work area.

Unit of Measure: Square Foot (SF) *

1.3.18 24-Inch CMP Bid Item No. 0027

1.3.18.1 Payment

Payment will be made at the contract unit price for the number of linear feet of culvert placed in the accepted work area.

1.3.18.2 Measurement

The length of pipe installed will be measured along the centerline of the pipe from end to end of pipe.

Unit of Measure: Linear Foot (LF)

1.3.19 36-Inch RCP Bid Item No. 0028

1.3.19.1 Payment

Payment will be made at the contract unit price for the number of linear feet of culvert placed in the accepted work area.

1.3.19.2 Measurement

The length of pipe installed will be measured along the centerline of the pipe from end to end of pipe.

Unit of Measure: Linear Foot (LF)

1.3.20 36-Inch Flap Gate Bid Item No. 0029

1.3.20.1 Payment

Payment will be made at the contract unit price for 36-inch flap gates installed in the accepted work area.

1.3.20.2 Measurement

Flap gates will be measured by the unit.

determined by the Contracting Officer shall be measured in cubic yards. The volume of aggregate surface course shall be determined by the average job thickness obtained in accordance with the paragraph "Thickness Control" of Section 02731 Aggregate Surface and Subbase Course multiplied by the surveyed area for aggregate surface course (CA-17) placed.

Unit of Measure: Cubic Yard (CY)

1.3.29 Granular Subbase Course (IDOT CA-6) Bid Item No. 0038

1.3.29.1 Payment

Payment will be made at the contract unit price for granular subbase course actually placed in the accepted work area.

1.3.29.2 Measurement

The quantity of granular subbase completed and accepted shall be measured in cubic yards. The volume of granular subbase shall be determined by the average job thickness obtained in accordance with the paragraph "Thickness Control" of Section 02731 Aggregate Surface and Subbase Course, multiplied by the surveyed area for granular subbase placed.

Unit of Measure: Cubic Yard (CY)

1.3.30 Fencing Bid Item No. 0039

1.3.30.1 Payment

Payment for chainlink fencing will be made at the contract unit price per linear foot for "Chainlink Fence" as specified.

1.3.30.2 Measurement

Chainlink fence shall be measured for payment to the nearest linear foot.

Unit of Measure: Linear Foot (LF)

1.3.31 Permanent Seeding Bid Item No. 0040

1.3.31.1 Payment

Payment for permanent seeding will be made at the contract unit price per acre of seeding established and shall constitute full compensation for all labor, equipment, and materials including seed, soil amendments, mulch, water, and pesticides required, and all maintenance and monitoring.

1.3.31.2 Measurement

Permanent seeding shall be measured in acres of seeding actually placed in the accepted work area.

Unit of Measure: Acre

1.3.32 Temporary Seeding Bid Item No. 0041

1.3.32.1 Payment

Payment for temporary seeding will be made at the contract unit price per

2.5 MATERIAL

2.5.1 Steel

Bridges shall be fabricated from ASTM A 588/A 588M, (Fy) greater than 50,000 psi and tubular sections from ASTM A 847, (Fy) greater than 50,000 psi.

2.5.2 Steel Plates

ASTM A 588/A 588M, Grade 50.

2.5.3 Steel Rails

ASTM A 588/A 588M or ASTM A 847, Grade 50.

2.5.4 Bolts, Nuts, and Washers

Bolts, nuts, and washers shall be of the material, grade, type, class,
style, and finish indicated or best suited for intended use.

2.5.4.1 High-Strength Bolts, Nuts, and Washers

ASTM A 325, Type 3.

2.5.4.2 Bolts, Nuts, and Washers (Other Than High-Strength)

a. Bolts and Nuts. ASTM A 307, Grade A.
b. Bolts. ASME B18.2.1.
c. Nuts. ASME B18.2.2.
d. Washers.
(1) Plain Washers. ASME B18.22.1, Type B.
(2) Lock Washer. ASME B18.22.1.
(3) Beveled Washers. ASTM F 436, Type 1, Beveled.

* 2.5.4.3 Treated Lumber Fastener

Fasteners shall be stainless steel ASTM F 593, Type 304. *

2.5.5 Wood Decking and Rub Rail

Wood decking and rub rail shall be Select Structural Fir or No. 1 Dense Southern Yellow Pine planks (minimum Fb=1, 400 psi). Decking
* and rub rail to be treated to AWPA Standard PS. Wood shall be treated with alkaline copper quat (ACQ types B and D) or copper azole (CBA-A, CA-B). Decking shall be treated to a total absorption * of 0.40 pounds per cubic foot of wood or to refusal. Deck planks shall be nominal 3 inch by 12 inch for the 10,000 pound vehicle load.

Wood planks shall be installed at the factory, tight with no gaps between the planks. Wood planks shall be attached with a continuous
* plank hold down angle along each edge of the deck. One stainless steel carriage bolt shall be installed at the edge of the deck through every other plank. Wood planks shall also be attached at the center of each bridge with two stainless steel carriage bolts per plank bolted * through a clip angle that is welded to the center stringer. Self-tapping screws shall not be used due to their tenancy to work loose

PART 2 PRODUCTS

2.1 SEED

2.1.1 Seed Classification

State-approved seed of the latest season's crop shall be provided in original sealed packages bearing the producer's guaranteed analysis for percentages of mixture, purity, germination, hard seed, weed seed content, and inert material. Labels shall be in conformance with AMS-01 and applicable state seed laws.

2.1.2 Permanent Seed Species and Mixtures

Permanent seed species and mixtures shall be proportioned by weight. The seed species mixture shall be a minimum of 80 percent pure live seed for each species. The mixture shall be native warm season grasses. The Contractor shall provide the mixture component names, classification, and * percent live seed to the Contracting Officer for approval prior to procurement of the product. This includes all areas shown as seeding on Sheets C-29 and C-30. *

2.1.3 Temporary Seed Species

* Temporary seeding shall include all areas shown for seeding on Sheets C-29 and C-30 and all exterior planting areas shown on Sheets C-28 and C-29. * Temporary seed species for surface erosion control or overseeding shall be as follows:

Botanical Name	Common Name	Percent Pure Live Seed
Lolium multiflorum	Annual rye grass	95

2.1.4 Quality

Weed seed shall be a maximum 1 percent by weight of the total mixture.

2.1.5 Seed Mixing

The mixing of seed may be done by the seed supplier prior to delivery, or on site as directed. The temporary and permanent seed may be mixed together prior to planting.

2.1.6 Substitutions

Substitutions will not be allowed without written request and approval from the Contracting Officer.

2.2 TOPSOIL

Topsoil shall be as defined in ASTM D 5268. When available, the topsoil shall be the existing surface soil stripped and stockpiled onsite in accordance with Section 02300 EARTHWORK. When additional topsoil is required beyond the available topsoil from the stripping operation, topsoil shall be delivered and amended as recommended by the soil test for the seed specified. Topsoil shall be free from slag, cinders, stones, lumps of soil, sticks, roots, trash or other material over a minimum 1-1/2 inch diameter. Topsoil shall be free from viable plants and plant parts.

2.7 PESTICIDE

Pesticide shall be insecticide, herbicide, fungicide, nematocide, rodenticide or miticide. For the purpose of this specification, a soil fumigant shall have the same requirements as a pesticide. The pesticide material shall be EPA registered and approved.

2.8 SURFACE EROSION CONTROL MATERIAL

Surface erosion control material shall conform to the following:

2.8.1 Surface Erosion Control Blanket

Blanket shall be machine produced mat of wood excelsior formed from a web of interlocking wood fibers; covered on one side with either knitted straw blanket-like mat construction; covered with biodegradable plastic mesh; or interwoven biodegradable thread, plastic netting, or twisted kraft paper cord netting.

2.8.2 Surface Erosion Control Fabric

Fabric shall be knitted construction of polypropylene yarn with uniform mesh openings 3/4 to 1 inch square with strips of biodegradable paper. Filler paper strips shall have a minimum life of 6 months.

2.8.3 Surface Erosion Control Net

Net shall be heavy, twisted jute mesh, weighing approximately 1.22 pounds per linear yard and 4 feet wide with mesh openings of approximately 1 inch square.

2.8.4 Surface Erosion Control Chemicals

Chemicals shall be high-polymer synthetic resin or cold-water emulsion of selected petroleum resins.

2.8.5 Hydrophilic Colloids

Hydrophilic colloids shall be physiologically harmless to plant and animal life without phytotoxic agents. Colloids shall be naturally occurring, silicate powder based, and shall form a water insoluble membrane after curing. Colloids shall resist mold growth.

2.8.6 Erosion Control Material Anchors

Erosion control anchors shall be as recommended by the manufacturer.

PART 3 EXECUTION

3.1 INSTALLING SEED TIME AND CONDITIONS

3.1.1 Seeding Time

* Seed shall be installed from April 15 to July 15 or September 1 to November 30, if ground conditions are suitable. Prior to seeding, the Contractor shall obtain approval from the Contracting Officer. *

surface. Sunlight shall not be completely excluded from penetrating to the ground surface.

3.3.3.6 Wood Cellulose Fiber, Paper Fiber, and Recycled Paper

Wood cellulose fiber, paper fiber, or recycled paper shall be applied as part of the hydroseeding operation. The mulch shall be mixed and applied in accordance with the manufacturer's recommendations.

3.3.4 Watering Seed

* The seed mixture shall be watered as necessary to prevent desiccation and to maintain an adequate supply of moisture within the root zone. Water shall be * applied to supplement rainfall at a rate sufficient to ensure moist soil conditions to a minimum 1 inch depth. Run-off and puddling shallbe prevented. Watering trucks shall not be driven over turf areas, unless otherwise directed. Watering of other adjacent areas or plant material shall be prevented.

3.4 SURFACE EROSION CONTROL

3.4.1 Surface Erosion Control Material

Where indicated or as directed, surface erosion control material shall be installed in accordance with manufacturer's instructions. Placement of the material shall be accomplished without damage to installed material or without deviation to finished grade.

3.4.2 Temporary Seeding

The application rate shall be 450 pounds of seed per acre and 1,000 gallons of slurry per acre. When directed during contract delays affecting the seeding operation or when a quick cover is required to prevent surface erosion, the areas designated shall be seeded in accordance with temporary seed species listed under Paragraph SEED.

3.4.2.1 Soil Amendments

When soil amendments have not been applied to the area, the quantity of 1/2 of the required soil amendments shall be applied and the area tilled in accordance with paragraph SITE PREPARATION. The area shall be watered in accordance with paragraph Watering Seed.

3.4.2.2 Remaining Soil Amendments

The remaining soil amendments shall be applied in accordance with the paragraph Tillage when the surface is prepared for installing seed.

3.4.3 Permanent Seeding

The application rate shall be 450 pounds of seed per acre. The seed shall be applied according to industry standards.

3.5 QUANTITY CHECK

For materials provided in bags, the empty bags shall be retained for recording the amount used. For materials provided in bulk, the weight certificates shall be retained as a record of the amount used. The amount of material used shall be compared with the total area covered to determine the rate of application used. Differences between the quantity applied and

3.5.4 Pruning

Pruning shall be accomplished by trained and experienced personnel. The pruning of trees and palms shall be in accordance with ANSI A300. Only dead or broken material shall be pruned from installed plants. The typical growth habit of individual plant material shall be retained. Clean cuts shall be made flush with the parent trunk. Improper cuts, stubs, dead and broken branches shall be removed. "Headback" cuts at right angles to the line of growth will not be permitted. Trees shall not be poled or the leader removed, nor shall the leader be pruned or "topped off".

3.6 MAINTENANCE DURING PLANTING OPERATION

Installed plant material and seed mixtures shall be maintained in a healthy growing condition. Maintenance operations shall begin immediately after each plant and seed is installed to prevent desiccation and shall continue until the plant establishment period commences. Installed areas shall be * kept free of undesired vegetation. The maintenance includes maintaining * the mulch, watering, and adjusting settling.

3.7 APPLICATION OF PESTICIDE

When application of a pesticide becomes necessary to remove a pest or disease, a pesticide treatment plan shall be submitted and coordinated with the installation pest management program.

3.7.1 Technical Representative

The certified installation pest management coordinator shall be the technical representative, and shall be present at all meetings concerning treatment measures for pest or disease control. They may be present during treatment application.

3.7.2 Application

A state certified applicator shall apply required pesticides in accordance with EPA label restrictions and recommendations. Clothing and personal protective equipment shall be used as specified on the pesticide label. A closed system is recommended as it prevents the pesticide from coming into contact with the applicator or other persons. Water for formulating shall only come from designated locations. Filling hoses shall be fitted with a backflow preventer meeting local plumbing codes or standards. Overflow shall be prevented during the filling operation. Prior to each day of use, the equipment used for applying pesticide shall be inspected for leaks, clogging, wear, or damage. Any repairs are to be performed immediately.

3.8 RESTORATION AND CLEAN UP

3.8.1 Restoration

Turf areas, pavements and facilities that have been damaged from the planting operation shall be restored to original condition at the Contractor's expense.

3.8.2 Clean Up

Excess and waste material shall be removed from the installed area and shall be disposed offsite. Adjacent paved areas shall be cleared.

HOLE NO. DCL-1

DRILLING LOG

DIVISION | INSTALLATION | SHEET 1 OF 1 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,768,824.2699 E 1,187,792.0992 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCL-1	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 15'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 15.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 7 / UNDISTURBED 1	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 616.6 WD, 618.7 AB, 22.4-24 hr.	
16. DATE HOLE: STARTED 3-31-99 / COMPLETED 3-31-99	
17. ELEVATION TOP OF HOLE: 626.1	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinsch	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			Not sampled			
625.1	1.0		Black silty clay, trace sand - very stiff (CL)	14"	11", S-1, S-1A 3"	3-3-5 Qp = 2.0 tsf Qp = 2.25 tsf
624.2	1.9		Gray and brown silty clay 3" - very stiff (CL) LL=40, PI=23			
622.6	3.5		Brown and gray silty clay - stiff (CL) WC=31.4%, LL=33, PI=18 Qu=0.66, Dry Wt.=99.0 pcf	28"	S-2	Torvane 4.25 tsf Qp = 1.5 tsf
620.1	6.0		Brownish gray clayey silt - medium (ML) WC=26.2%	16"	S-3	2-3-5 Qp = 0.75 tsf
617.6	8.5		Fine sandy silt, trace clay - gray - medium - wet (ML)	15"	S-4	1-3-5 Qp = 0.5 tsf
615.1	11.0		Gray silty clay, seams of clayey silt and silt - very stiff (CL) WC=23.4%, LL=34, PI=16	18"	S-5	2-3-6 Qp = 2.0 tsf
612.6	13.5		Sandy silt, trace clay (ML) WC=20.3%	18"	10" S6 S-6A 8"	1-5-7
611.8	14.3		Silty fine to medium sand - saturated (SM) Note: Seams of silt. WC=25.8%			
611.1	15.0		End of Boring Offset 25' south due to overhead power lines. Backfilled with bentonite chips. Qp = Hand Penetrometer			

HOLE NO. DCL-2

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 1 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,767,402.9449 E 1,188,400.4940 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCL-2	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 15'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 15.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 7 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 619.1 WD, 619.8 AB	
16. DATE HOLE: STARTED 3-31-99 / COMPLETED 3-31-99	
17. ELEVATION TOP OF HOLE: 628.1	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinicke	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
627.1	1.0		12 in. topsoil			
			Brown and gray silty clay, little sand and gravel - very stiff (CL)	14"	S-1	4-6-7 Qp = 2.75 tsf
624.6	3.5		Brown and gray silty clay, trace sand and gravel - very stiff (CL) WC=17.3%, LL=30, PI=15	13"	S-2	1-3-3 Qp = 2.75 tsf
622.1	6.0		Brown and gray silty clay, trace sand, seams of silt and sand - medium (CL) LL=25, PI=11	13"	S-3	1-2-2 Qp = 0.75 tsf
619.6	8.5		Gray silty clay, trace sand Occasional silt seams - soft - wet (CL) WC=21.9%, LL=27, PI=12	17"	S-4	1-0-2 Qp = 0.25
617.1	11.0		Gray fine sandy silt (ML) Occasional sand seams - medium - wet - saturated WC=19.7%	17"	S-5	2-2-4 Qp = 0.5 tsf
614.6	13.5		Gray fine to medium sand, trace silt - saturated (SP) WC=24.1%	18"	13" S-6 S-6A 5"	1-1-4 Qp = 0.25 tsf
613.5	14.6		Gray silt, trace sand - soft (ML) WC=24.7%			
613.1	15.0		End of Boring Offset 40' east due to trees & obstructions. Backfilled with bentonite chips. Qp = Hand Penetrometer			

HOLE NO. DCL-3

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 1 SHEETS

1. PROJECT: Deer Creek
JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,766,380.9809 E 1,189,713.9407 Ford Hts., IL
3. DRILLING AGENCY: Fox Drilling
4. HOLE NO. (As shown on drawing title and file number): DCL-3
5. NAME OF DRILLER: Don Eger
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 15'
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 15.0
10. SIZE AND TYPE OF BIT: HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 UNDISTURBED 1
14. TOTAL NUMBER CORE BOXES:
15. DEPTH GROUND WATER: 622.4 WD, 623.0 AB
16. DATE HOLE: STARTED 3-31-99 COMPLETED 3-31-99
17. ELEVATION TOP OF HOLE: 632.4
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Brian Reinke

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			Not sampled			
631.4	1.0		Brown and gray silty clay - stiff (CL)	8"	S-1	2-4-5 Qp = 1.0 tsf
628.9	3.5		Brown and gray silty clay - very stiff (CL) WC=23.3%, LL=36, PI=19, Dry Wt.=105.7 pcf, c=1.0 tsf	27"	S-2	Torvane 3.25 tsf Qp = 3.5 tsf
626.4	6.0		Brown and gray silty clay - very stiff (CL) LL=33, PI=16	14"	S-3	2-2-4 Qp = 2.75 tsf
623.9	8.5		Gray sandy silt - soft - wet (ML) WC=24.1%	16"	S-4	1-2-3 Qp = 0.25 tsf
621.4	11.0		Gray silty sand, seams of silt and sand (SM) WC=21%, Dry Wt.=105.7 pcf 0% gravel, 10.9% sand, 89.1% fines	14"	S-5	2-3-3
618.9	13.5		Alternating seams of silt and sand (SM-ML) WC=25.7% (#6 SM-ML) WC=20.0% (#6A SM)	14"	S-6 S-6A	3-5-7
617.4	15.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

ENG FORM ... PREVIOUS EDITIONS ARE OBSOLETE PROJECT HOLE NO.

HOLE NO. DCL-4

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 1 SHEET

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,764,961.7311 E 1,189,920.7816 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCL-4	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 15'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 15.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 621.6 WD, 622.2 AB, 622.8-24 hr.	
16. DATE HOLE: STARTED 3-31-99 / COMPLETED 3-31-99	
17. ELEVATION TOP OF HOLE: 631.6	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinicke	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			6 in. topsoil			
630.6	1.0		Brown and gray silty clay, trace roots - stiff (CL)	11"	S-1	3-3-5 Qp = 1.5 tsf
628.1	3.5		Brown and gray silty clay - stiff WC=24.5%, LL=37, PI=21	9"	S-2	2-3-3 Qp = 1.5 tsf
625.6	6.0		Sandy clay, seams of silt and sand - stiff (CL) LL=24, PI=9	18"	S-3	2-2-4 Qp = 1.0 tsf
623.1	8.5		Brownish gray silty sand, seams of silt - stiff - wet (SM) WC=20.2%	14"	S-4	2-4-6 Qp = 1.0 tsf
620.6	11.0		Gray sand, trace silt and gravel - saturated (SW) WC=15.8%	12"	S-5	4-6-9
618.1	13.5		Gray sand, trace silt and gravel - saturated (SW) Occasional silt seams.	18"	S-6	4-4-9
616.6	15.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

HOLE NO. DCL-5

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 1 SHEETS

1. PROJECT: Deer Creek
JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,763,440.5326 E 1,189,913.7573 Ford Hts., IL
3. DRILLING AGENCY: Fox Drilling
4. HOLE NO. (As shown on drawing title and file number): DCL-5
5. NAME OF DRILLER: Don Eger
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 15'
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 15.0
10. SIZE AND TYPE OF BIT: HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES:
15. DEPTH GROUND WATER: 622.5 WD, 622.5 AB
16. DATE HOLE: STARTED 3-29-99 COMPLETED 3-29-99
17. ELEVATION TOP OF HOLE: 635.5
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Brian Rainka

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			Black clayey topsoil			
634.5	1.0		Dark brown sandy clay - stiff (CL)	9"	S-1	2-4-5 Qp = 1.5 tsf
632.0	3.5		Brown and gray silty clay - stiff (CL) WC=43.6%, LL=55, PI=34	4"	S-2	2-4-7 Qp = 1.0 tsf
629.5	6.0		Brown and gray silty clay, trace sand - stiff (CL) LL=35, PI=20	14"	S-3	2-3-3 Qp = 1.25 tsf
627.0	8.5		Gray silty sand with seams of silt - moist (SM-ML) WC=19.4%	13"	S-4	4-5-7
624.5	11.0		Brown fine to medium sand, trace silt - moist (SP) WC=12.4% 1.4% gravel, 75.2% sand, 23.4% fines	17"	S-5	3-7-9
622.0	13.5		Gray fine to medium sand, trace silt - saturated (SP)	13"	S-6	2-3-3
620.5	15.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

HOLE NO. DCR-1

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,954.8218 E 1,189,893.4226 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-1	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 12 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 626.3 WD, 625.6 AB, 625.5-24 hr.	
16. DATE HOLE: STARTED 3-30-99 / COMPLETED 3-30-99	
17. ELEVATION TOP OF HOLE: 636.3	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinicke	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			6 in. topsoil			
635.3	1.0		Black - gray - brown silty clay - stiff (CL) WC=12.4%	14"	S-1	2-4-8 QP = 1.75 tsf
632.8	3.5		Gray and brown silty clay - stiff (CL) WC=16.4%, LL=51, PI=31 Dry Wt. = 94.2 pcf	9"	S-2	3-3-5 Qp = 1.25 tsf
630.3	6.0		Brownish gray sand, trace gravel (SW)	27"	S-3	Torvane 1.75 tsf
627.8	8.5					
627.2	9.1		Brownish gray silt and sandy silt (ML) WC=14.4%	15"	7" S-4 S-4A 8"	5-7-9
			Brown fine to medium sand - saturated (SP)			
625.3	11.0		Gray-brown fine to medium sand, trace gravel (SP) WC=14.4%, 5.0% gravel, 80.7% sand, 14.3% fines	14"	S-5	3-6-7
622.8	13.5					
622.6	13.8		3 in. gray sand (SP)	13"	3" S-6 S-6A 10"	2-5-6
			Gray silt - sand seams, trace clay - stiff (ML) WC=21.3%			
620.3	16.0		Gray silt (ML) Seams of sand (SW) WC=20.7%	12"	S-7	7-12-11
617.8	18.5		Silty fine to medium sand (SM) WC=19.1%	18"	S-8	3-5-11

HOLE NO. DCR-1

DRILLING LOG

DIVISION

INSTALLATION

SHEET 2 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,954.8218 E 1,189,893.4226 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-1	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 12 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 626.3 WD, 625.6 AB, 625.5-24 hr.	
16. DATE HOLE: STARTED 3-30-99 / COMPLETED 3-30-99	
17. ELEVATION TOP OF HOLE: 636.3	
18. TOTAL CORE RECOVERY FOR BORING	
19. SIGNATURE OF INSPECTOR: Brian Reinicke	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
615.3	21.0		Silty fine to medium sand (SM) WC=19.1%			
			Silty sand, seams of silt and sand - saturated (SM) 1.9% gravel, 56.2% sand, 41.9% fines	18"	S-9	7-9-9
612.8	23.5		Silty sand, seams of silt - saturated (SM) WC=19.6%	14"	S-10	3-5-14
611.3	25.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

ENG FORM ... PREVIOUS EDITIONS ARE OBSOLETE ... PROJECT ... WORK UNIT

HOLE NO. DCR-2

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,926.7154 E 1,190,356.2380 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-2	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 35'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 35.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 15 / UNDISTURBED 2	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 623.4 WD, 620.6 AB, 623.8-24 hr.	
16. DATE HOLE: STARTED 3-30-99 / COMPLETED 3-30-99	
17. ELEVATION TOP OF HOLE: 634.4	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinicke	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
633.4	1.0		6 in. topsoil			
			Brown and gray silty clay - very stiff (CL)	12"	S-1	5-6-7 Qp = 2.75 tsf
630.9	3.5		Brown and gray sand, trace silt and clay (SM) WC=15.8%	28"	S-2	Torvane 1.5 tsf
628.4	6.0		Brown and gray sandy silt - stiff (ML) WC=17.1%	15"	S-3	4-5-6 Qp = 1.5 tsf
625.9	8.5		Brown silty sand (SM) WC=21.2%	16"	13" S-4 S-4A 3"	3-5-9
624.8	9.6		Gray silt (ML) 3 in. wet at bottom WC=20.1%			
623.4	11.0		Gray silt - stiff - wet (ML) WC=20.4%	28"	S-5	Torvane 1.0 tsf Qp = 1.25 tsf
620.9	13.5		Gray fine sandy silt - saturated (ML) WC=18.2%	18"	S-6	5-7-10
618.4	16.0		Gray fine to medium sand, trace silt - saturated (SP) WC=20.3%	13"	S-7	2-5-10
615.9	18.5		Gray fine to medium sand, trace silt - saturated (SP) WC=24.1%	15"	S-8	3-7-12
614.4	20.0					

HOLE NO. DCR-2

DRILLING LOG

DIVISION | INSTALLATION | SHEET 2 OF 2 SHEETS

1. PROJECT: Deer Creek | JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,926.7154 E 1,190,356.2380 Ford Hts., IL
3. DRILLING AGENCY: Fox Drilling
4. HOLE NO. (As shown on drawing title and file number): DCR-2
5. NAME OF DRILLER: Don Eger
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 35'
8. DEPTH DRILLED INTO ROCK: 0
9. TOTAL DEPTH OF HOLE: 35.0
10. SIZE AND TYPE OF BIT: HSA
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 15 | UNDISTURBED 2
14. TOTAL NUMBER CORE BOXES:
15. DEPTH GROUND WATER: 623.4 WD, 620.6 AB, 623.8-24 hr.
16. DATE HOLE: STARTED 3-30-99 | COMPLETED 3-30-99
17. ELEVATION TOP OF HOLE: 634.4
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: Brian Reinicker

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			Gray fine to medium sand, trace silt - saturated (SP) WC=24.1%			
613.4	21.0		Gray fine to medium sand, trace silt - saturated (SP) WC=20.4%	14"	S-9	4-8-12
610.9	23.5		Gray fine to medium sand, trace silt - saturated (SP)	18"	S-10	3-5-12
608.4	26.0		Gray fine to medium sand, trace silt, coarse sand and gravel - saturated (SP) WC=15.5%	18"	S-11	12-17-21
605.9	28.5		Gray silty fine to medium sand, occasional gravel (SM) WC=17.1%	18"	14" S-12 S-12A 4"	22-24-27 Qp = 2.0 tsf
604.7	29.7		Gray sandy clay, occasional broken limestone gravel - very stiff (CL) WC=18.0%			
603.4	31.0		Gray fine sand, trace silt (SP) WC=6.9%	18"	8" S-13 S-13A 10"	19-27-22
602.7	31.7		Gray silt with sand seams (ML) WC=14.5%			
600.9	33.5		Gray silt - stiff (ML)		S-14	10-15-13 Qp=1.75 tsf
599.4	35.0		End of Boring Max. Dry Wt. = 112.1 pcf Opt. WC = 15.0% (3-7 ft.) Backfilled with bentonite chips. Qp = Hand Penetrometer			

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE. | PROJECT Deer Creek | HOLE NO. DCR-2

HOLE NO. DCR-3

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 1 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,408.6775 E 1,189,505.5161 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-3	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 20'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 20.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 626.8 WD, 628.8 AB	
16. DATE HOLE: STARTED 3-30-99 / COMPLETED 3-30-99	
17. ELEVATION TOP OF HOLE: 637.8	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reichow	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
636.8	1.0		6 in. clayey topsoil			
			Gray-brown silty clay, trace sand and roots - stiff (CL)	10"	S-1	2-3-6 Qp = 1.75 tsf
634.3	3.5		Gray brown silty clay, trace sand - stiff (CL) WC=18.8%, LL=34, PI=18	13"	S-2	2-3-4 Qp = 1.25 tsf
631.8	6.0		Gray-brown silty fine sand (SM) WC=21.7%	16"	S-3	1-3-4
629.3	8.5		Gray-brown clay, trace sand, seams of sandy clay - stiff (CL) WC=21.5%	15"	S-4	2-3-7 Qp = 1.25 tsf
626.8	11.0		Gray silty sand - saturated (SM) WC=22.3%, LL=34, PI=16	17"	S-5	3-2-9
624.3	13.5		Gray silt, trace sand, seams of silty sand - saturated (ML) WC=23.8%	18"	S-6	5-3-5
621.8	16.0		Gray silty clay, seams of sand and silt - medium (CL) WC=26.4%, LL=32, PI=15	15"	S-7	1-3-4 Qp = 0.5 tsf
619.3	18.5		Gray silty clay - medium (CL) WC=23.7%, LL=33, PI=16		S-8	2-3-3 Qp = 0.5 tsf
617.8	20.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

HOLE NO. DCR-4

DRILLING LOG

DIVISION | INSTALLATION | SHEET 1 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,101.5165 E 1,189,963.8932 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-4	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11 / UNDISTURBED 1	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 630.4 WD, 632.2 AB	
16. DATE HOLE: STARTED 3-29-99 / COMPLETED 3-29-99	
17. ELEVATION TOP OF HOLE: 637.4	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinbold	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
636.4	1.0		Topsoil			
635.6	1.8		Black silty clay and topsoil - stiff (CL)	15"	S-1 10" S-1A 5"	Qp = 1.5 tsf
			Brown and gray silty clay - very stiff (CL) WC=23.6%, LL=54, PI=32			Qp = 2.5 tsf
633.9	3.5		Gray and brown silty clay - stiff (CL)	14"	S-2	3-4-6 Qp = 1.75 tsf
631.4	6.0		Gray and brown silty clay - very stiff (CL) WC=26.3%, LL=28, PI=13 Dry Wt.=98.7 pcf, C=0.7 tsf	18"	S-3	3-4-5 Qp = 2.25 tsf
628.9	8.5		Gray silty clay, little silt - stiff (CL-SC) WC=20.7%, LL=31, PI=31	20"	S-4	Torvane 2.5 tsf Qp = 1.75 tsf
626.4	11.0		Sand, trace gravel and silt (SW) WC=18.0%	18"	12" S-5 S-5A 6"	1-2-4
625.4	12.0		Silt, trace sand and clay (ML) WC=19.4%			
623.9	13.5		Silty clay - hard (CL) WC=24.7%, LL=39, PI=18	12"	S-6	7-11-18 Qp = 4.5+ tsf
621.4	16.0		Gray silt - wet (ML) WC=20.2%	18"	S-7	5-5-6
618.9	18.5		Clayey silt - gray - medium - wet (ML) WC=21.2%	17"	S-8	2-3-5 Qp = 0.5 tsf
617.4	20.0					

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PROJECT Deer Creek HOLE NO. DCR-4

HOLE NO. DCR-4

DRILLING LOG

DIVISION

INSTALLATION

SHEET 2 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,101.5165 E 1,189,963.8932 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-4	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11 / UNDISTURBED 1	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 630.4 WD, 632.2 AB	
16. DATE HOLE: STARTED 3-29-99 / COMPLETED 3-29-99	
17. ELEVATION TOP OF HOLE: 637.4	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reisher	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			Clayey silt - gray - medium - wet (ML) WC=21.2%			
616.4	21.0		Gray silty sand (SM) WC=24.8%	9"	S-9	Weight of rod
614.9	22.5		Gray silty sand (SM) WC=20.4%			
				15"	S-10	Weight of rod
612.4	25.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

HOLE NO. DCR-5

DRILLING LOG

DIVISION | INSTALLATION | SHEET 1 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,268.7121 E 1,190,816.3943 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-5	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 12 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 622.7 WD, 623.7 AB, 625.2-24 hr.	
16. DATE HOLE: STARTED 3-29-99 / COMPLETED 3-29-99	
17. ELEVATION TOP OF HOLE: 633.7	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinhart	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
632.7	1.0		Clayey topsoil - black			
632.4	1.3		Clayey topsoil - black - very stiff	13"	3" S-1 S-1A 10"	3-7-10 Qp = 2.25 tsf Qp = 2.5 tsf
			Gray and brown silty clay, trace roots and topsoil - very stiff (CL) WC=23.0%, LL=53, PI=33			
630.2	3.5		Gray and brown silty clay, trace roots and topsoil - very stiff (CL)	12"	S-2	2-4-4 Qp = 2.25 tsf
627.7	6.0		Grayish brown clayey silt - very stiff WC=24.6%	16"	S-3	2-4-7 Qp = 2.0 tsf
625.2	8.5		Brownish gray clayey sand with seams of silt and clay - moist (SC) WC=14.7%, LL=20, PI=6	15"	S-4	3-6-17
622.7	11.0		Brownish gray silt, little sand, occasional sand seams - very stiff - wet (ML) WC=21.1%	18"	S-5	4-6-5 Qp = 2.5 tsf
620.2	13.5					
619.9	13.8		Silty gray sand - saturated (SM)(4") WC=21.1%	16"	S-6	3-6-5 Qp = 2.75 tsf
			Gray silt - very stiff (ML) WC=15.7%			
617.7	16.0		Gray silt - very stiff - saturated (ML) WC=18.0%	18"	S-7	5-8-8 Qp = 3.0 tsf
616.2	17.5		Gray silt - very stiff - saturated (ML)			
613.7	20.0			18"	S-8	3-4-8 Qp = 3.0 tsf

3-13

HOLE NO. DCR-5

DRILLING LOG

DIVISION

INSTALLATION

SHEET 2 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,762,268.7121 E 1,190,816.3943 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-5	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 12 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 622.7 WD, 623.7 AB, 625.2-24 hr.	
16. DATE HOLE: STARTED 3-29-99 / COMPLETED 3-29-99	
17. ELEVATION TOP OF HOLE: 633.7	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Reinish	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
612.7	21.0		Gray silt - very stiff - saturated (ML)			
			Gray silt, trace fine sand - stiff - saturated (ML) WC=23.9%	18"	S-9	3-5-10 Qp = 1.0 tsf
610.2	23.5		Gray sand, trace silt (SW) WC=13.8%	18"	S-10	2-4-7
608.7	25.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

HOLE NO. DCR-6

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 1 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,761,604.8029 E 1,189,015.6386 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-6	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 18.54'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 18.5	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 0 / UNDISTURBED 2	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 621.6 WD, 627.1 AB, 631.6-24 hr.	
16. DATE HOLE: STARTED 3-30-99 / COMPLETED 3-30-99	
17. ELEVATION TOP OF HOLE: 639.6	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Heinicke	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
638.6	1.0		12 in. topsoil			
			Black, brown and gray silty clay, trace roots - very stiff (CL)	15"	S-1	1-4-6 Qp = 2.0 tsf
636.1	3.5		Brownish gray silty sand (SM) Missing bottom 3 in. WC=16.2%, LL=19, PI=6 Qu=0.61 tsf, Cc=0.1, Pc=1.2 tsf Dry Wt.=112.4 pcf	24"	S-2	Torvane 2.0 tsf
633.6	6.0		Brownish gray silty sand - soft (SM)	15"	S-3	1-2-2 Qp = 0.25
631.1	8.5		Gray silty clay, trace sand - very stiff (CL) WC=14.7%, LL=24, PI=11	16"	S-4	2-5-6 Qp = 2.25 tsf
628.6	11.0		Gray silty clay, trace sand - hard (CL) WC=20.1%	10"	S-5	3-8-11 Qp = 4.25 tsf
626.1	13.5		Gray silty clay - hard (CL) WC=23.2%, LL=37, PI=17 Qu=1.74 tsf, Dry Wt.=104.0 pcf	28"	S-6	Torvane 4.5 tsf Qp - 4.0 tsf
623.6	16.0		Gray silty clay - very stiff (CL) LL=24, PI=6	14"	S-7	4-6-7 Qp = 3.0 tsf
621.6	18.0					
621.1	18.5		Driller notes fractured rock beginning at 18 ft.	.5"	S-8	50/0.5"
			End of Boring Backfilled with bentonite chips. Max Dry Wt.=124.9 pcf Opt WC=9.8% (4-8 ft.) Qp = Hand Penetrometer			

HOLE NO. DCR-7

DRILLING LOG

DIVISION

INSTALLATION

SHEET 1 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,761,113.5420 E 1,189,939.9775 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-7	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 621.2 WD, 627.2 AB, 633.1-24 hr.	
16. DATE HOLE: STARTED 3-29-99 / COMPLETED 3-29-99	
17. ELEVATION TOP OF HOLE: 636.2	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Rainka	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
635.2	1.0		Topsoil			
			Brown-gray silty clay, trace topsoil - very stiff (CL)	10"	S-1	4-5-8 Qp = 2.25 tsf
632.7	3.5		Brown and gray silty clay - very stiff (CL) WC=28.4%, LL=52, PI=31	8"	S-2	3-4-6 Qp = 2.0 tsf
631.2	5.0		Gray silty clay, trace gravel, shells and organic - stiff (CL)	14"	S-3	2-3-4 Qp = 1.0 tsf
627.7	8.5		Gray silty clay - very stiff (CL) WC=19%, LL=33, PI=17	12"	S-4	2-6-9 Qp = 2.0 tsf
625.2	11.0					
624.8	11.4		Gray clayey silt (ML) WC=17.7% Gray silt - wet (ML)	14"	5" S-5A S-5B 9"	3-6-11
622.7	13.5		Gray silt, trace sand (ML) WC=20.8%	17"	S-6	1-5-9
621.2	15.0		Gray clayey silt (ML) WC=22.6%	18"	S-7	5-7-9
617.7	18.5		Gray silt (ML)	15"	S-8	5-6-7
616.2	20.0					

HOLE NO. DCR-7

DRILLING LOG

DIVISION

INSTALLATION

SHEET 2 OF 2 SHEETS

1. PROJECT: Deer Creek	JOB NUMBER: 30302
2. LOCATION (Coordinates or Station): N 1,761,113.5420 E 1,189,939.9775 Ford Hts., IL	
3. DRILLING AGENCY: Fox Drilling	
4. HOLE NO. (As shown on drawing title and file number): DCR-7	
5. NAME OF DRILLER: Don Eger	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.	
7. THICKNESS OF OVERBURDEN: 25'	
8. DEPTH DRILLED INTO ROCK: 0	
9. TOTAL DEPTH OF HOLE: 25.0	
10. SIZE AND TYPE OF BIT: HSA	
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): NGVD	
12. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D-50	
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11 / UNDISTURBED 0	
14. TOTAL NUMBER CORE BOXES	
15. DEPTH GROUND WATER: 621.2 WD, 627.2 AB, 633.1-24 hr.	
16. DATE HOLE: STARTED 3-29-99 / COMPLETED 3-29-99	
17. ELEVATION TOP OF HOLE: 636.2	
18. TOTAL CORE RECOVERY FOR BORING: %	
19. SIGNATURE OF INSPECTOR: Brian Remish	

ELEVATION (ft) a	DEPTH (ft) b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth weathering, etc., if significant) g
			Gray silt (ML)			
615.2	21.0					
			Gray silty sand - saturated (SM) WC=25% 0% gravel, 52.7% sand, 47.3% fines	12"	S-9	Weight of rod
612.7	23.5					
			Gray sand, trace gravel and silt - saturated (SW) WC=22.0%	18"	S-10	Weight of rod
611.2	25.0		End of Boring Backfilled with bentonite chips. Qp = Hand Penetrometer			

PROJECT HOLE NO.